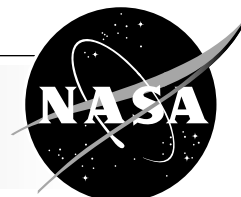# WHAT'S NEW from NASA EOSDIS Data Centers

NASA Earth Observing System Data and Information System (EOSDIS) data centers provide data, information, and services that advance understanding and knowledge of our home planet. For more information about the EOSDIS Distributed Active Archive Centers (DAACs) see: http://nasadaacs.eos.nasa.gov. For more information about science, exploration, and discovery at NASA visit NASA Science Mission Directorate: http://science.hq.nasa.gov.

ASF DAAC

Alaska Satellite Facility DAAC

http://www.asf.alaska.edu

Synthetic Aperture Radar (SAR), Sea Ice, Polar Processes, Geophysics

Educational Products (General Audience)

Capturing a Dynamic Planet – Using Synthetic Aperture Radar to View the Earth (CD-ROM)

This product features a SAR Image Gallery and a SAR Science Concepts section. The image gallery contains Level 2 data products as well as an assortment of SAR images from around the world. Captions explain what can be seen in each image. The Science Concepts section explains the basic concepts of SAR and InSAR. This product may be used as an educational resource on SAR and InSAR and for understanding how these data are used for research.

Global Rain Forest Mapping Project, Mainland South-East Asia Rain Forest Mosaic (CD-ROM)

This product contains mosaics of SAR images of the mainland part of South-East Asia, including Burma (Myanmar), Thailand, Laos, Vietnam, Cambodia, West (Peninsular) Malaysia and Singapore. Sections of southern China and north-east India are also included. Each mosaic depicts the region during the predominantly dry season in Jan./Feb. 1997 and during the rainy season in August 1998 and may be used by anyone studying this region of the world. The mosaics have a 100-meter resolution and were created from nearly 4,000 full-resolution images. The above discs can be ordered at: http://www.asf.alaska.edu/unrestricted_products/CDorderform.html.

GES DAAC

GSFC Earth Sciences DAAC

http://daac.gsfc.nasa.gov

Upper Atmosphere, Atmospheric Dynamics, Global Precipitation, Global Biosphere, Ocean Biology, Ocean Dynamics, Solar Irradiance

Data

TOMS Version 8

TOMS Version 8 gridded 1x1.25 degree Level 3 data (in a 2-disk DVD-ROM set) and Level 2 instrument level resolution data in HDF-EOS5 format are both available from the GES DAAC. To order the DVDs or access the data, please visit: http://daac.gsfc.nasa.gov/data/dataset/TOMS.

Aura OMI, MLS, and HIRDLS

Since the successful launch of the Aura satellite on July 15, 2004, the GES DAAC has been archiving OMI Level 1 and 2 data products. These data will be made publicly available in the first half of 2005. New Level 1 and 2 data from the MLS instrument will be available in the early part of 2005. HIRDLS data release has been delayed. For more information about the status of Aura, see: http://daac.gsfc.nasa.gov/Aura/.

Tools and Services

Giovanni

The GES-DISC Interactive Online Visualization and Analysis Infrastructure (Giovanni) is a Web interface that allows users to perform interactive data analysis online without having to download any data. Giovanni is currently supporting the following interfaces:

- Ocean Color Time Series Project (http://reason.gsfc.nasa.gov/Giovanni/)
- MODIS Online Visualization and Analysis System (MOVAS, http://tss.nascom.nasa.gov/www/Giovanni//)
- TRMM Online Visualization and Analysis System (TOVAS, http://lake.nascom.nasa.gov/tovas/)

Soon to be released to the public is another Giovanni supported system for the atmospheric composition community that will include gridded 1x1.25 degree TOMS ozone, aerosol index, reflectivity, and erythemal UV data.

Upgraded Subsetting Services

This service is available from the DAAC archive and Data Pool and can be accessed from: http://daac.gsfc.nasa.gov/data/. Currently, it includes AIRS Level 1 and 2 channel and parameter subsets; and MODIS Level 1B channel, Ocean Level 3 spatial, and Atmosphere Level 3 parameter subsets.

GHRC

Global Hydrology Resource Center

http://ghrc.msfc.nasa.gov/

Hydrologic Cycle, Severe Weather Interactions, Lightning, Convection

Tools and Services

Data Pool

http://datapool.nsstc.nasa.gov

GHRC and the University of Alabama in Huntsville (UAH) announces the public release of the GHRC Data Pool (version 1.0). It was developed as part of the NASA-funded DISCOVER (Distributed Information Services for Climate and Ocean Products and Visualizations for Earth Research), (an ESIP II) project. The Data Pool supports the automated online data ordering of Earth science data sets, in particular passive microwave and other related products. The Data Pool interface provides:

- Data search based on product, instrument, platform and date
- Multiple ways to access data (e.g., search, ftp , menu, and OPeNDAP)
- Automated order packaging for FTP delivery
- Direct FTP access to online data sets
- Selected subsetting in version 1.0
- Shopping cart style order creation
- Email notification of order completion

LaRC DAAC

Langley Research Center DAAC
http://eosweb.larc.nasa.gov

Radiation Budget, Clouds, Aerosols, Tropospheric Chemistry

Data

SAGE III
Stratospheric Aerosol and Gas Experiment (SAGE) III Level 2 Lunar Species product contains profiles of chlorine dioxide, ozone, nitrogen dioxide, nitrogen oxides, trace gases, and water vapor and includes measurement uncertainty. SAGE III Level 2 Monthly Cloud Presence product contains cloud amount/frequency, cloud height, and cloud vertical distribution.

SSE
The Release 5 Surface meteorology and Solar Energy (SSE) data set contains parameters formulated for assessing and designing renewable energy systems. This latest release contains new parameters based on recommendations by the renewable energy industry and it is more accurate than previous releases. Its online plotting capabilities allow quick evaluation of potential renewable energy projects for any region of the world. The SSE data set is formulated from NASA satellite- and reanalysis-derived insolation and meteorological data for the 10-year period July 1983 through June 1993. Results are provided for 1° latitude by 1° longitude grid cells over the globe.

TES
The Tropospheric Emission Spectrometer (TES) launched into sun-synchronous orbit aboard Aura, the third of NASA's Earth Observing System (EOS) spacecraft, on July 15, 2004. The primary objective of TES is to make global, three-dimensional measurements of ozone and other chemical species involved in its formation and destruction. TES standard data products will include profile measurements of ozone, water vapor, carbon monoxide, methane, nitric oxide, nitrogen dioxide, and nitric acid for 16 orbits every other day. TES Level 1B spectral radiance data are available.

Tools and Services

MISR Level 3 Imagery
Visualization of parameters contained in the Multi-angle Imaging SpectroRadiometer (MISR) Level 3 global data products such as radiances, aerosol optical depth, surface reflectance, and vegetation indices are available. The Level 3 products are averages of select Level 1 and Level 2 parameters over daily, monthly, seasonal and annual time periods. MISR Level 3 data are available for viewing, animating, and downloading from: http://eosweb.larc.nasa.gov/PRODOCS/misr/level3/overview.html.

Data Pool
LaRC's Atmospheric Sciences Data Center (ASDC) Data Pool is an online, short-term data cache that provides Web interface and FTP access to selected data products. Specially subsetted and reformatted MISR data products supporting UAE^2, RICO, ICARTT and C-MARE field experiments are now available from: http://eosweb.larc.nasa.gov/HPDOCS/datapool.

LP DAAC

Land Processes DAAC
http://LPDAAC.usgs.gov

Land Processes

Data

MODIS Data Products
The MODIS Aqua V004 products are now available. The V004 collection represents validated data, meaning that product uncertainties are generally well defined over a range of representative conditions, depending on the level of validation achieved. Also the V004 BRDF/Albedo suite of products now includes combined Terra and Aqua data. A V005 product collection is expected to be processed and become available the latter part of 2005. For more information on MODIS products, visit: http://LPDAAC.usgs.gov/modis/dataproducts.asp.

MODIS Browse Images
Specific V004 MODIS products now provide browse images for identifying cloud cover and geographic areas. Additional Terra and Aqua MODIS products will provide browse data as they continue to be released.

Tools and Services

The ASTER DEM Coverage Map
The ASTER DEM coverage map is available at: http://LPDAAC.usgs.gov/aster/dem_map.asp.

MODIS LDOPE Tools
Version 1.4 of the Land Data Operational Product Evaluation (LDOPE) tools was released July 2004. For information about the new features including statistical and masking capabilities, visit: http://LPDAAC.usgs.gov/landdaac/tools/ldope/index.asp.

MODIS Reprojection Tool (MRT)
A new version of the MRT was released July 2004. For more information on changes and new features, visit: http://LPDAAC.usgs.gov/landdaac/tools/modis/index.asp.

MRT Swath Tool
The LP DAAC has released a software tool for re-projecting MODIS Level 1B and Level 2 swath data to gridded products. For more information about MRT Swath, visit: http://LPDAAC.usgs.gov/landdaac/tools/mrtswath/index.asp.

GloVis
MODIS land products with associated browse are available through the USGS Global Visualization Viewer (http://glovis.usgs.gov/), offering expedient perusal of global and regional data availability on the basis of browse images and metadata attributes. For more information and data access on GloVis, visit: http://glovis.usgs.gov/.

USGS Seamless Distribution System
The LP DAAC has developed Terra MODIS 1-km 16-day vegetation index (MOD13A2) mosaics from time series products for the conterminous United States for the years 2000 to 2005. These are available through the USGS Seamless Distribution System and are also used as dynamic layers of *The National Map*. For more information and data access, visit :http://seamless.usgs.gov/.

NSIDC DAAC

National Snow and Ice Data Center DAAC
http://nsidc.org

Snow and Ice, Cryosphere and Climate

Data

AMSR-E
The first reprocessing of the AMSR-E data for June 2002 (beginning of mission) through February 2004 has been finished. The complete set of AMSR-E data products, from the beginning of the mission to the present, is now available. See: http://nsidc.org/data/amsre/order.html.

CLPX
The NASA Cold Land Processes Experiment (CLPX) is a multi-sensor, multi-scale field program of nested study areas in Colorado and Wyoming, USA, designed to extend the current local-scale understanding of water fluxes, storage, and transformations to regional and global scales, using ground,

airborne, and spaceborne observations. As of October 2004, the data are available to the public. See: http://nsidc.org/data/clpx/.

ICESat/GLAS
Release-19 data are available for all ICESat/GLAS products distributed by NSIDC. Release-19 offers improved sea ice roughness, calculations in GLA13, corrected energy computation, improved aerosol and cloud discrimination and layer detection, and many other product enhancements. See: http://nsidc.org/data/icesat/detailed_disclaimer.html.

MODIS/Aqua
New sea ice and snow products from Moderate Resolution Imaging Spectroradiometer (MODIS)/Aqua are available for distribution. An improved sea ice algorithm uses MODIS band 7 instead of band 6 to distinguish sea ice and snow from clouds. The use of band 7 in Version 4 Aqua products removes striping problems previously evident from defective band 6 detectors. See: http://nsidc.org/data/modis/.

Services
Data Subscription Requests
Users can now request subscriptions for AMSR-E, ICESat/GLAS, MODIS, and NISE data. This option is convenient if you require new data for a specific region (as they are ingested into NSIDC's data archive) but you do not want to actively search and order data files each time. See: http://nsidc.org/daac/subscriptions.html.

ORNL DAAC

Oak Ridge National Laboratory DAAC
http://www.daac.ornl.gov

Biogeochemical Dynamics, Ecological Data, Environmental Processes

Data
BigFoot
The BigFoot Project was designed to provide detailed ground-based measurements to validate products from the Moderate Resolution Imaging Spectroradiometer (MODIS) instrument onboard NASA's Earth Observing System (EOS) satellite Terra. Four data sets released include gridded surfaces of land cover, leaf area index (LAI), Net Primary Production (NPP), and Gross Primary Production (GPP) data from 2000 through 2002 for selected EOS Land Validation Sites. See: http://daac.ornl.gov/BIGFOOT_VAL/bigfoot.html.

Climate Collections
The data set, "Nitrogen Deposition Onto the United States and Western Europe", prepared by Elizabeth Holland and colleagues, contains data for wet deposition from 1978-1994 and dry nitrogen-species deposition from 1989-1994 for the United States and Western Europe. See: http://daac.ornl.gov/CLIMATE/climate_collections.html.

SAFARI 2000
The Southern African Regional Science Initiative (SAFARI) 2000 project was conducted during 1999-2001 to develop a better understanding of the Earth-atmosphere-human system in southern Africa. See http://daac.ornl.gov/S2K/safari.html. The third and final volume in a series of CD-ROMs is available. The data sets were originally prepared in coordination with investigators by the SAFARI 2000 Data Group at NASA's Goddard Space Flight Center. Volume 3 is a 5-disk set containing meteorological, fire, aerosol, atmospheric chemistry, and precipitation data, as well as a large collection of MODIS images taken aboard the Terra satellite. In addition to the data on Volumes 1-3, the ORNL DAAC released 39

SAFARI 2000 data sets. These data sets contain meteorological, aerosol, atmospheric chemistry, fire-related measurements, and precipitation data.

Soil Collections
The "Northern and Mid-Latitude Soil Database, Version 1" data set, which was developed jointly by several international organizations, provides soil classifications generally at 1:1 million scale for the polar and mid-latitude regions of the northern hemisphere. See: http://daac.ornl.gov/SOILS/soils_collections.html.

Vegetation Collections
The "Biomass Allocation and Growth Data of Seeded Plants" data set provides leaf, stem, and root biomass for various plant taxa that can be used to evaluate allometric patterns of standing biomass within and across the broad spectrum of vascular plant species. See: http://www.daac.ornl.gov/VEGETATION/vegetation_collections.html.

VEMAP
VEMAP was an international project studying the response of biogeochemical models and vegetation-type distribution models (i.e., biogeographical models) to variability in climate and to other spatial and temporal factors for the continental U.S. See: http://www.daac.ornl.gov/VEMAP/vemap.html. Selected VEMAP model output results from the modeling exercise are available for several combinations of biogeochemistry and biogeography models and climate change scenarios for the period 1895-2100.

Tools and Services
Web Site Revision
The ORNL DAAC released a major revision to its Web site and it includes many enhancements aimed at helping users locate and obtain data and information. The new site incorporates a shopping cart that allows users to acquire data from several projects with one simple checkout process. See: http://www.daac.ornl.gov.

Subsetting
The ORNL DAAC has also made major modifications to the FLUXNET and MODIS ASCII Subsets Web sites allowing the user to select data from a list or from a Map Server. You may also choose to visualize your subset. See: http://www.fluxnet.ornl.gov/fluxnet/ and http://www.modis.ornl.gov/modis/.

PO.DAAC

Physical Oceanography DAAC
http://podaac.jpl.nasa.gov

Oceanic Processes, Air-Sea Interactions

Data
GRACE
The Gravity Recovery And Climate Experiment (GRACE) mission data products are available from August 2002 to June 2004. Level 2 data products are monthly gravity field estimates as well as mean gravity field models. These are provided as sets of spherical harmonic coefficients of the geopotential. Level 1B data contain inter-satellite range variations and all necessary corrections to derive monthly time-variations in the Earth's gravity field. GRACE data products can be downloaded from: http://podaac.jpl.nasa.gov/grace/.

Altimeter Ocean Pathfinder Sea Surface Height Anomaly (SSHA)
These SSHA data products are reprocessed altimeter observations using a consistent set of improved algorithms, designed to

provide a long time-series that is crucial for climate study variability. Satellite altimeter measurements are provided for the following missions: GEOSAT Exact Repeat Mission (ERM), GEOSAT Follow-on (GFO), ERS1/2, and TOPEX/POSEIDON. These products were previously hosted on the NASA/GSFC Ocean Pathfinder site. See: http://podaac.jpl.nasa.gov/altimeter_ocean_pathfinder/.

Version 5 AVHRR Oceans Pathfinder Sea Surface Temperature (SST)
Version 5 has significant improvements over version 4.1, including higher spatial resolution (4km), the addition of an ice mask, along with an improved land mask which allows for more retrievals along the coasts and in lakes. Formats are also different in that version 5 files are in HDF-SDS while version 4.1 are in HDF-RASTER. Additionally, SST quality flag and number of observations are in separate files. These data were released as a collaborative effort between the NOAA National Oceanographic Data Center (NODC), the University of Miami's Rosenstiel School of Marine and Atmospheric Sciences, and the NASA PO.DAAC. See: http://podaac.jpl.nasa.gov/products/product216.html.

New GOES Data
In addition to GOES 10 & 12, GOES 9 near-real-time SST data are now available at a 6km resolution. Coverage is from 42S to 42N, and 110E to 180W, from Oct. 2004 to present. See: http://podaac.jpl.nasa.gov/products/product190.html.

Tools and Services
Faster Data Transfer Tool
A new electronic transfer tool is available and provides reliable and faster data downloads; users have typically found up to 10x improvement over conventional FTP. For more information on how to download and use the tool with PO.DAAC data products, please visit: http://podaac.jpl.nasa.gov/aspera.

Web Site Enhancements
See our new, searchable Frequently Asked Questions (FAQ) Web site. By utilizing our free Sign-On Account, users can submit questions, track their status and update them all on-line. To access our FAQ site, please visit: https://podaac.custhelp.com.

SEDAC

Socioeconomic Data and Applications Center

http://sedac.ciesin.columbia.edu

Population, Sustainability, Geospatial Data, Multilateral Environmental Agreements

Data
Gridded Population of the World and the Global Rural-Urban Mapping Project
A decade has passed since the first effort to create Gridded Population of the World (GPW) – a global grid of population values. Version 3 of GPW utilizes about 375,000 input units, triple the previous version. The data was reallocated via a simple, areal-weighted redistribution of census inputs from their census boundaries (or administrative polygons) to a uniform quadrilateral grid. The greater number of input units allows for increased spatial accuracy at an output resolution of 2.5 arc-minutes. Population density and count data for 1990, 1995 and 2000 are freely available for download in formats compatible with geospatial software.

The Global Rural-Urban Mapping Project (GRUMP) differs from GPW in that it is lightly modeled. In addition to areal-weighted redistribution, GRUMP uses input from several non-census sources to estimate settlement points and derive urban extents based on those settlement points. The GRUMP population grid has an output resolution of 30 arc-seconds. Maps and ancillary data products, including summary information are available for GPW and GRUMP. See: http://sedac.ciesin.columbia.edu/gpw.

2005 Environmental Sustainability Index
The 2005 Environmental Sustainability Index (ESI) was released on 27 January at the World Economic Forum in Davos, Switzerland. The ESI ranks 146 countries on 21 levels of sustainability covering natural resource endowments, past and present pollution levels, environmental management efforts, contributions to protection of the global commons, and a society's capacity to improve its environmental performance over time. The report was produced in collaboration with the Yale Center for Environmental Law and Policy and the World Economic Forum. See: http://www.ciesin.columbia.edu/indicators/esi/.

Services
Global Spatial Data and Information User Workshop: Development, Dissemination, and Use
Presentations are now available from the Global Spatial Data and Information User Workshop: Development, Dissemination, and Use, held 21-23 September 2004 at Lamont-Doherty Earth Observatory of Columbia Univ. in Palisades, NY. SEDAC co-sponsored the workshop with CODATA and served as the local host. The workshop brought a core set of institutions involved in global spatial data and information development and dissemination together with representatives of key user communities to address short- and long-term needs for coordination and collaboration. See: http://sedac.ciesin.columbia.edu/GSDworkshop/.

Global Change Master Directory (GCMD)
A directory to Earth science data and services

http://gcmd.nasa.gov

The GCMD database currently holds more than 16,000 desciptions of Earth science data sets and services covering all aspects of Earth and environmental sciences. Features available on the GCMD Web site with the latest upgrade include:

- ISO 19115 metadata compliance
- Enhanced free-text search
- Highlighted search terms in the results
- Updated metadata authoring tools
- Access to prototype GIS mapserver
- Improved navigation through the science and services keywords